

IN THE CLAIMS:

Please cancel claims 12 and 19.

Please amend claims 1, 13, 18, and 20 as follows:

1. (CURRENTLY AMENDED) A check valve for a fuel pump comprising:

a valve housing adapted to be disposed in an outlet member of the fuel pump;

a valve seat formed on an interior surface of said valve housing, said valve seat having a generally frustaconical cross-sectional shape;

a valve member disposed in said valve housing and having a closed position to engage said valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member, said valve member having a hub with a generally hemi-spherical shape and an annular groove extending radially into said hub and a seal disposed in said groove for contacting said valve seat when said valve member is in said closed position; ~~and~~

a spring disposed about said valve member and located axially between said valve seat and one end of said valve housing to urge said valve member toward said valve seat; and

said valve member having at least one outlet port disposed below said groove and located axially between said valve seat and the one end of said valve housing when said valve member is in said closed position to prevent fuel flow, said valve member traveling a predetermined dwell distance before said outlet port is exposed and fluid flow can exit past from said valve seat when said valve member is in said closed open position, creating a flow area large enough to prevent a venturi that limits travel of said valve member and allowing fluid flow past said valve seat when said valve member is in said open position.

2. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 1 wherein said valve member has a stem extending axially from said hub.

3. (ORIGINAL) A check valve as set forth in claim 2 wherein said valve housing has a passageway extending axially therethrough to receive said stem.

4. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 1 including a flow tube at one end of said valve housing adjacent said valve seat.

5. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 3 wherein said valve housing has an enlarged opening at one end of said passageway.

6. (ORIGINAL) A check valve as set forth in claim 5 wherein said valve member has a flange at one end of said stem opposite said hub and disposed in said enlarged diameter portion.

7. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 1 wherein said valve member has a flow port extending axially therein.

8. (PREVIOUSLY PRESENTED) A check valve as set forth in claim 7 wherein said at least one outlet port extends radially in said valve member and communicates with said flow port.

9. (ORIGINAL) A check valve as set forth in claim 1 wherein said at least one outlet port has a metered shape.

10. (CANCELED)

11. (CANCELED)

12. (CANCELED)

13. (CURRENTLY AMENDED) A ~~check valve for a fuel pump~~ comprising:
an outlet member having a first passageway extending therethrough;
 a valve housing ~~adapted to be~~ disposed in ~~an~~ said first passageway of said outlet member ~~of the fuel pump~~, said valve housing having a second passageway extending axially therethrough;
 a valve seat formed on an interior surface of said valve housing forming said second passageway, said valve seat having a generally frustaconical cross-sectional shape;
 a flow tube extending axially from one end of said valve housing adjacent said valve seat;
 a valve member disposed in said second passageway of said valve housing and having a closed position to engage said valve seat to prevent fuel from flowing through ~~the~~ said outlet member and an open position to allow fuel to flow through ~~the~~ said outlet member; ~~and~~
a spring disposed about said valve member and located axially between said valve seat and one end of said valve housing to urge said valve member toward said valve seat; and

said valve member having a hub with a generally hemi-spherical shape and an annular groove extending radially into said hub and a seal disposed in said groove for contacting said valve seat when said valve member is in said closed position and a flow port extending therein with at least one outlet port having a metered shape disposed below said groove and located axially between said valve seat and the one end of said valve housing when said valve member is in said closed position to prevent fuel flow, said valve member traveling a predetermined dwell distance before said outlet port is exposed and fluid flow can exit past from said valve seat when said valve member is in said ~~closed~~ open position, creating a flow area large enough to prevent a venturi that limits travel of said valve member and allowing fluid flow past ~~said valve seat when said valve member is in said open position.~~

14. (CANCELED)

15. (CANCELED)

16. (CANCELED)

17. (CANCELED)

18. (CURRENTLY AMENDED) A ~~check-valve~~ fuel pump as set forth in claim 13 wherein said valve housing has an enlarged opening at one end of said second passageway and said valve member has a flange at one end and disposed in said enlarged diameter portion.

19. (CANCELED)

20. (CURRENTLY AMENDED) A fuel pump comprising:

a pump section at one axial end;

a motor section adjacent said pump section;

an outlet section adjacent said motor section at the other axial end, said outlet section including an outlet member having a first passageway therethrough;

a valve housing disposed in said first passageway of said outlet member, said valve housing having a body portion with a second passageway extending axially therethrough;

a flow tube extending axially from one end of said body portion;

a valve seat disposed adjacent said second passageway and formed on said valve housing adjacent said flow tube, said valve seat having a generally frustaconical cross-sectional shape;

a valve member disposed in said second passageway of said valve housing and having a closed position to engage said valve seat to prevent fuel from flowing through the outlet member and an open position to allow fuel to flow through the outlet member;

said valve member ~~having said valve member~~ having a hub with a generally hemispherical shape and an annular groove extending radially into said hub;

a seal disposed in said groove for contacting said valve seat when said valve member is in said closed position;

said valve housing having an enlarged opening at one end of said second passageway and said valve member having a flange at one end and disposed in said enlarged diameter portion;

a spring disposed about said valve member and located axially between said flange and surface of the enlarged diameter portion to urge said seal and valve member toward said valve seat; and

said valve member having a flow port extending therein with at least one outlet port disposed below said groove and located axially between said valve seat and one end of said valve housing when said valve member is in said closed position to prevent fuel flow, said valve member traveling a predetermined dwell distance before said outlet port is exposed and fluid flow can exit past from said valve seat when said valve member is in said closed open position, creating a flow area large enough to prevent a venturi that limits travel of said valve member and allowing fluid flow past said valve seat when said valve member is in said open position.